Narrowbanding: Coordination is Critical

As many of you know, the last phase of the Federal Communications Commission's (FCC) Narrowbanding Mandate will occur on January 1, 2013, which is only one budget cycle away. In order to meet the deadline, many factors must be taken into consideration, including financial support, buy-in from local elected officials, the impact to your own agency, and coordination. The last factor is the most important. To transition to narrowband, you must plan and prepare now; however, to be successful in narrowbanding, you will need to coordinate and plan with the following groups: your agency, other agencies in your jurisdiction, your neighbors, and vendors.

Coordination within your Agency

The first area of coordination should be within your agency or department. It is essential that your daily users are able to communicate with each other. To ensure a smooth transition to narrowband, first notify agency leadership of the narrowbanding mandate. Explicitly state the impact of what will happen should the agency opt not to transition. Agencies who do not meet the deadline face the loss of communication capabilities or fines.

Next, you should coordinate with all radio users to create an inventory of resources and radio equipment. Obtaining an accurate inventory in a timely manner will take cooperation, coordination, and participation of all who possess radio equipment. Perhaps this could be accomplished during a shift change or on days off. Therefore, staff availability and overtime costs should be kept in mind when coordinating this phase. During the inventory, collect information about the manufacturer, model, and serial number of all radio equipment. Use the inventory to determine which radios need to be replaced or reprogrammed.

After completing the inventory, work with agency leaders to develop a narrowbanding transition plan. The plan should prioritize the order in which equipment is narrowbanded. Consider the infrastructure, repeaters, base stations, control stations, mobile radios, and hand-held radios when creating the prioritized list. Consider resources—both personnel and funding—required to complete the transition and plan accordingly.

In addition to coordinating inventory, the FCC requires that agencies possess several factors on their FCC license to use narrowband frequencies, including:

- The narrowband emission (11K)
- Tower heights
- Transmitter Effective Radiated Power (ERP)
- Control Point/Point of Contacts (POC)

If any of this information is missing, you will need to modify your FCC license. This is an opportune time to review your FCC license and update any outdated or missing information. It should be noted that modifying an FCC license takes time and funding that should be accounted for during planning stages. To avoid cancellations of your license or fines, coordinate your license modification and plan accordingly when you prepare your narrowbanding budget.

Coordination with other Agencies in your Jurisdiction

Coordination with other departments and agencies in your jurisdiction is very important. If these groups transition to narrowband and you do not, you will no longer be able to communicate with them. To avoid this fate and the ensuing ripple effect, prior to narrowbanding identify the departments and agencies your emergency responders may need to communicate with. A ripple effect is caused when an agency narrowbands but other agencies continue to operate on wideband spectrum; as a result, the agencies are unable to communicate with one another. Identify the narrowbanding POCs within each of these departments and agencies and establish relationships. Work with these POCs to plan for narrowbanding.

Coordination with your Neighbors

Coordination with your neighbors is similar to coordination within your jurisdiction, but the impact area is much larger. In this case, "neighbors" include those departments and agencies that are situated in your region, beyond your jurisdiction. Key steps include identifying the neighboring agencies your agency needs to communicate with—including tribal agencies in the region,—identifying the narrowbanding POCs within each of these agencies, and establishing relationships. You may consider establishing a short-term working group with these individuals. The working group would meet on a regular basis to discuss and plan narrowbanding efforts within region.

Regardless of the approach you take, when planning and preparing with neighbors, consider the following questions:

- Are your neighbor agencies mandated to complete the narrowbanding transition by local officials or department executives, or is it considered voluntary compliance?
- Does their city or county use a VHF/UHF cross-band mutual aid system?
- When and how do you ensure that those departments using your agency's frequency have narrowbanded?
- How will your neighbor agencies fund the narrowbanding transition?
- Does the region use regional mutual aid systems, statewide channels, or national fire and law enforcement channels? Will these need to be narrowbanded?

The ripple effect discussed earlier becomes larger if regional, tribal, statewide, or national mutual aid channels are not considered during planning stages. For example, in the State of Tennessee significant coordination is required to ensure the Tri-State Fire Mutual Aid channel is minimally impacted. The channel is currently used by fire departments in and around the Chattanooga area, as well as agencies in Tennessee, Georgia, and Alabama. Tennessee has two statewide mutual aid repeaters, one VHF and one UHF, with many locations cross-banded as well as some statewide tactical channels. There is a Tennessee EMS Plan that mandates EMS units have specific channels in the ambulances such as 155.205, 155.295 and 155.340. In Tennessee, 155.340 is the channel used for an ambulance to coordinate with hospitals' emergency rooms. But 155.340 is designated as a national mutual aid channel now. National EMS Medical channels, national fire mutual aid channels and the national law enforcement channel should be kept in mind as well since these channels are used by volunteer, local, and State agencies in addition to federal agencies and will need additional coordination.

Coordination with Vendors

Whether you use a commercial radio vendor or have your own departmental radio shop, radio technicians must be involved in the narrowbanding planning process. The earlier you can coordinate your timeline with vendors, the better. Many commercial radio shops may only have one technician and a few installers. They are contending with multiple public safety customers as well as business and industrial customers who will need to narrowband. Therefore, users will be competing for their services in a short timeframe. Failure to coordinate with your technician could cause a major delay in meeting the deadline.

Coordination and Disposal of Wideband-Only Radio Equipment

Once the narrowband transition is complete, your agency will need to determine how to dispose of wideband-only equipment. Your best option is to coordinate with surplus property representatives to plan for the disposal and sale of equipment. However, before disposing of equipment, ensure that the frequencies and channel elements have been removed. Use caution when re-selling equipment to other licensees. Wideband only equipment should never be resold to a buyer who will put it back in service.

To be successful in the narrowband process, coordination on many levels must be accomplished. Working with the other departments and agencies and building relationships will be beneficial down the road, foster interoperability, and allow for a more successful response. On December 31, 2012, I plan to enjoy ringing in the New Year with family and friends instead of programming or installing radios.